



DATE: March 30, 2022

AGENDA ITEM # 7

**TO:** Complete Streets Commission  
**FROM:** Jaime O. Rodriguez, Consultant  
**SUBJECT:** Citywide Pedestrian Activated Flashing Beacon System Maintenance

**RECOMMENDATION:**

Provide input on replacement equipment at existing Pedestrian Activated Flashing Beacon System locations.

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**INTRODUCTION**

There are 16 pedestrian-activated flashing beacon systems in the City of Los Altos. The equipment is in varying states of repair due to equipment failures, which are normal and expected over time. The City plans to issue an improvement project to repair equipment at all 16 locations. The City is interested in providing consistency in equipment as part of the proposed maintenance project. Consistency will make maintenance and operations more seamless, as well as provide pedestrian users with a more consistent system.

Staff is soliciting input from the Commission on equipment options as part of this discussion item.

**BACKGROUND**

The complete list of pedestrian-activated flashing beacon sites in the City of Los Altos is provided in Table 1 below.

Table 1  
Los Altos Pedestrian-Activated Flashing Beacon Sites

No.	Location	No.	Location
1	San Antonio Rd & Loucks Av *	10	Edith Av & University Av
2	San Antonio Rd & Pine Ln *	11	Springer Av & Rosita Av *
3	San Antonio Rd & Mt Hamilton Av *	12	Portland Av & Carmel Terrace
4	San Antonio Rd & Hillview Av *	13	Grant Rd & Morton Av *
5	San Antonio Rd & Hawthorne Av *	14	St Joseph Av & Deodara Av *
6	San Antonio Rd & Pepper Dr *	15	Homestead Rd & Fallen Leaf Dr
7	San Antonio Rd & Lyell St *	16	El Monte Av & Mills Av
8	Almond Av & N Gordon Wy *		
9	Almond Av & Formway Ct *		

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\* Denotes location with existing equipment failure

The equipment at each location varies depending on the installation date. Below is a summary of the equipment type by location:

Silicon - San Antonio Rd Corridor (9 Total)  
Constellations - Homestead Rd & Fallen Leaf Dr

TAPCO - El Monte Ave & Mills Av  
- Springer Av & Rosita Av  
- Grant Rd & Morton Av  
- St Joseph Ave & Deodara Dr

JSF Tech - Portland Ave & Carmel Terrace  
- Homestead Rd & Fallen Leaf Dr

Lane Light - Edith Ave & Rosita Ave

All the sites vary in the equipment configuration including the use of in-pavement beacons, LED-embedded signs, rectangular rapid beacons, standard push buttons, wave-activated push buttons, and audible equipment.

The Silicon Constellation equipment sites include LED embedded signs that are generally more costly to repair with longer lead time for replacement materials.

The City's last pedestrian-activated flashing beacon site installation, El Monte Avenue & Mills Avenue, includes the most current industry standard best-practice equipment deployment including:

- TAPCO Manufacturer
- Rectangular Rapid Flashing Beacons
- Accessible Pedestrian Signals with audible, manual push, and waive motion activation
- Static Signs
- Solar Panels

## **DISCUSSION**

The City is preparing a set of improvement plans to replace failed equipment at the various pedestrian activated flashing beacon sites across Los Altos (16 total). City staff is seeking input from the Complete Streets Commission on the following items:

## 1. San Antonio Rd Corridor RRFBs

City staff is interested in replacing all LED-embedded Pedestrian Crossing Warning signs with Rectangular Rapid Flashing Beacon (RRFB) systems with static signs and Accessible Pedestrian Signal push buttons that include manual push or wave activation technology. A minimum of two poles (one per corner per crossing) with back-to-back beacons per pole would be provided and a 3<sup>rd</sup> pole if center medians are available.

### Benefits:

- RRFB equipment is industry standard and best practice, and uniform with other jurisdictions
- RRFB equipment is less costly to repair than LED-embedded signs
- RRFB systems include modular elements such as wave technology to activate devices and audible messaging, which are accessible for people with visual impairment or physical disabilities
- Equipment is consistent with other recent deployments in Los Altos and neighboring jurisdictions

### Drawbacks:

- Residents are familiar with LED-embedded signs

## 2. San Antonio Rd Corridor In-Pavement Flashing Beacon Abandonment

City staff is interested in abandoning the existing In-Pavement Flashing Beacons along San Antonio Rd. This is due to difficulty in maintaining the flashers.

(If the City policy preference is to maintain the existing in-pavement lighting systems, replacement of existing pole structures will still be required to support the use of larger solar panels to power the rectangular flashing beacon and in-pavement flashing lights.)

### Benefits:

- Abandoning in-pavement flashers has become industry standard due to their functional inconsistency and frequent need for repairs
- Inconsistent functionality and maintenance frequency presents a safety issue
- Abandoning in-pavement lights reduces operations & maintenance costs
- Repairs would require replacement of all units at each site to ensure consistent light output, increasing replacement cost

### Issues:

- Residents are familiar with In-Pavement Flashers

## 3. Accessible Pedestrian Signal Push Buttons

City staff is interested in replacing all push button systems at all the beacon locations with Accessible Pedestrian Signals (APS) buttons that include audible messages, and either manual push or wave-activation capabilities.

### Benefits:

- APS buttons with wave technology limit physical touch of buttons to activate flashing beacon systems
- Audible messaging notifies pedestrians that warning lights are active
- These systems are accessible for people with vision impairments and physical disabilities
- These are the most modern technologies

Issues:

- Audible messaging can cause issues with residents regarding noise impacts. Audible levels will be lowered to lowest settings to avoid concerns.

Pending commission input, the City plans to finalize improvement plans for the project by early Spring so that plans can be released for bids and construction scheduled for late-Spring.

Sample  
Industry Standard Best-Practice Beacon System  
El Monte Ave & Mills Ave, Los Altos, CA



TAPCO Rectangular Rapid Flashing Beacon (RRFB) System

- Two RRFB units on each pole, back-to-back so motorists see lights on both sides of street
- Push or Wave button activation
- Larger solar panel with larger batteries for longer use
- Standard static signs for easy maintenance